

eBird Best Practices

Advanced Topics

The **Cornell** Lab  of Ornithology

Land Cover Covariates

MODIS MCD12Q1 v006

- Supervised land cover classification of MODIS reflectance
- Global coverage
- 500 m spatial resolution
- Annual temporal resolution (2001-2018)

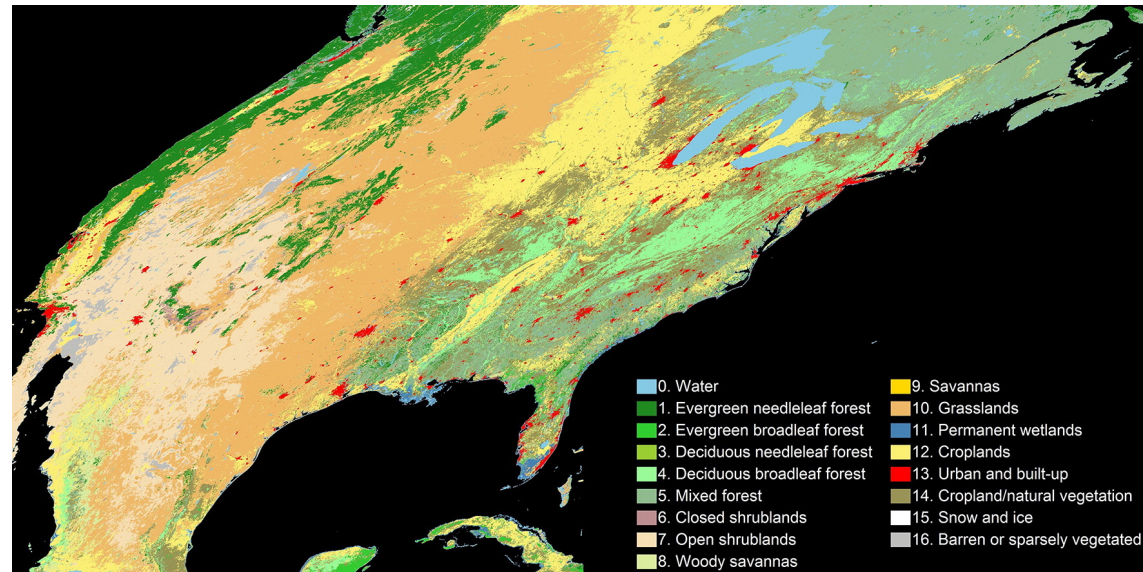
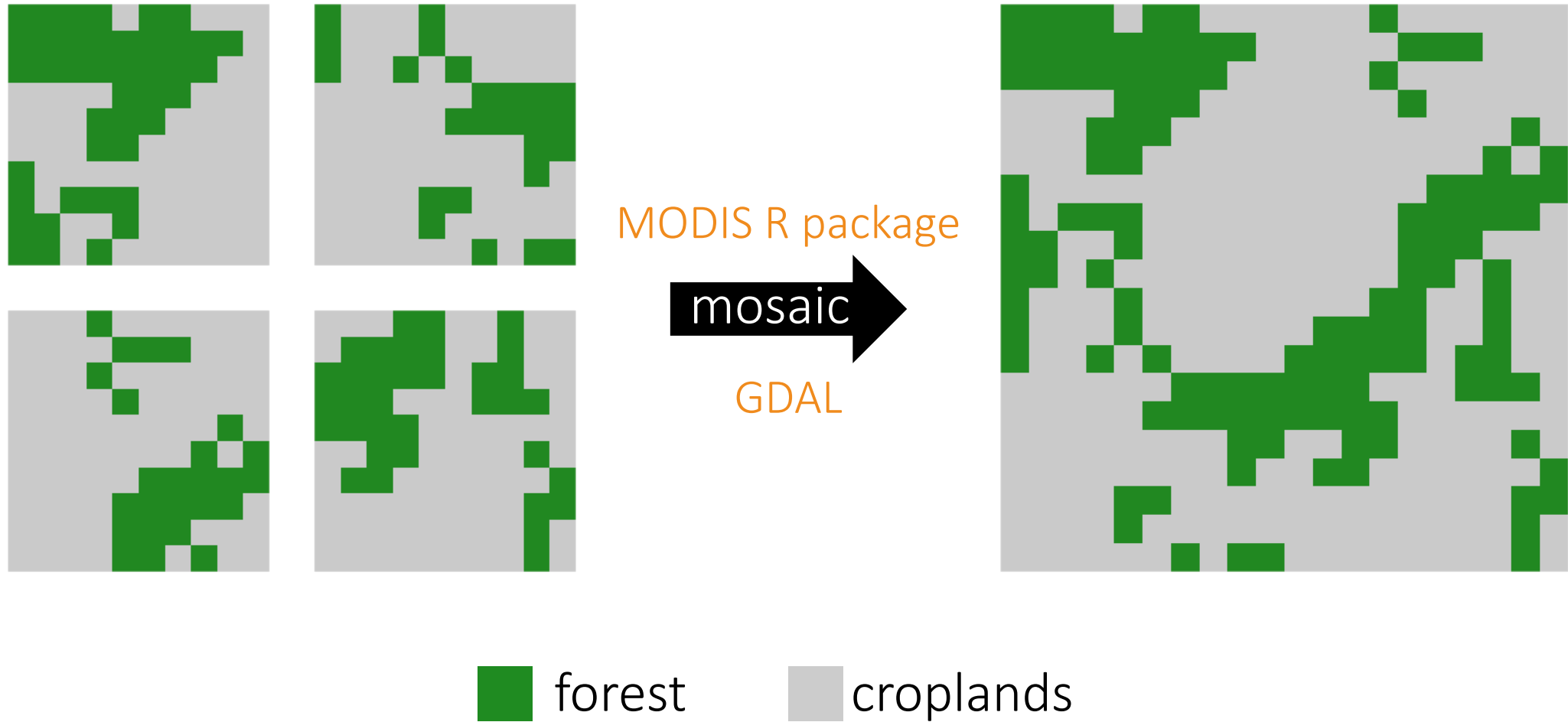


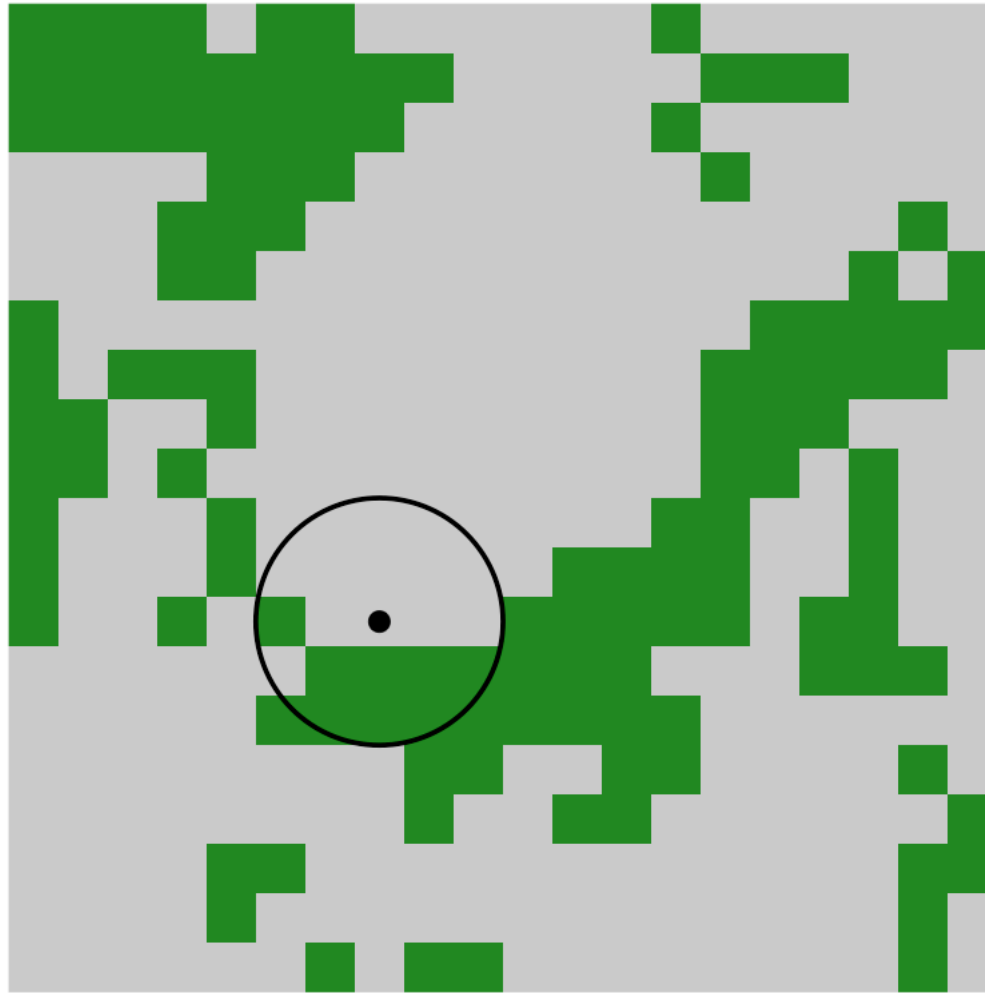
Table 4: University of Maryland (UMD) legend and class definitions.

Name	Value	Description
Water bodies	0	At least 60% of area is covered by permanent water bodies.
Evergreen Needleleaf Forests	1	Dominated by evergreen conifer trees (canopy >2m). Tree cover >60%.
Evergreen Broadleaf Forests	2	Dominated by evergreen broadleaf and palmate trees (canopy >2m). Tree cover >60%.
Deciduous Needleleaf Forests	3	Dominated by deciduous needleleaf (larch) trees (canopy >2m). Tree cover >60%.
Deciduous Broadleaf Forests	4	Dominated by deciduous broadleaf trees (canopy >2m). Tree cover >60%.
Mixed Forests	5	Dominated by neither deciduous nor evergreen (40-60% of each) tree type (canopy >2m). Tree cover >60%.
Closed Shrublands	6	Dominated by woody perennials (1-2m height) >60% cover.
Open Shrublands	7	Dominated by woody perennials (1-2m height) 10-60% cover.
Woody Savannas	8	Tree cover 30-60% (canopy >2m).
Savannas	9	Tree cover 10-30% (canopy >2m).
Grasslands	10	Dominated by herbaceous annuals (<2m).
Permanent Wetlands	11	Permanently inundated lands with 30-60% water cover and >10% vegetated cover.
Croplands	12	At least 60% of area is cultivated cropland.
Urban and Built-up Lands	13	At least 30% impervious surface area including building materials, asphalt, and vehicles.
Cropland/Natural Vegetation Mosaics	14	Mosaics of small-scale cultivation 40-60% with natural tree, shrub, or herbaceous vegetation.
Non-Vegetated Lands	15	At least 60% of area is non-vegetated barren (sand, rock, soil) or permanent snow and ice with less than 10% vegetation.
Unclassified	255	Has not received a map label because of missing inputs.

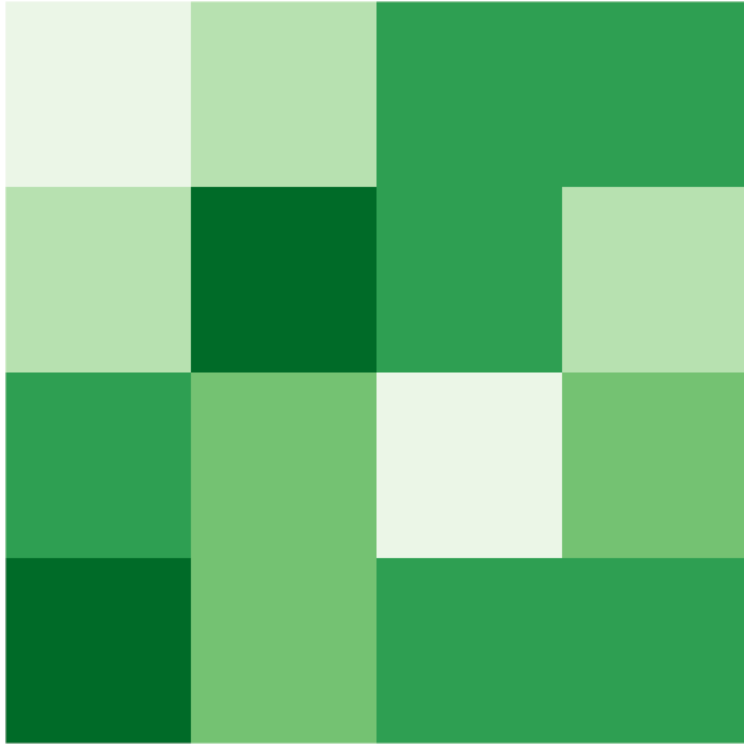
MODIS data are downloaded as tiles



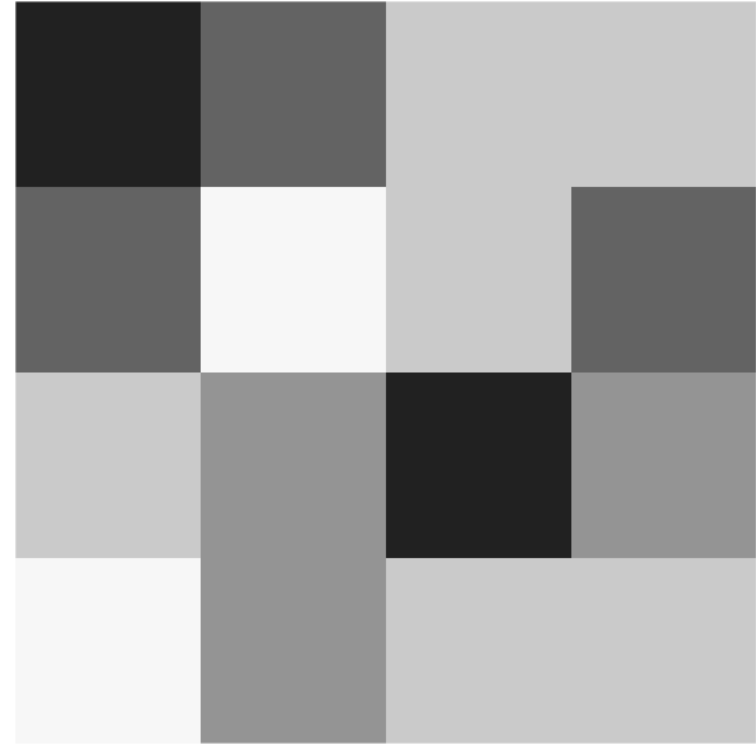
Summarize within checklist neighborhood



Generate a prediction surface



% forest cover



% croplands cover